

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

STAFF SUMMARY REPORT (Bill Johnson)
MEETING DATE: October 19, 2005

ITEM: 9

SUBJECT: **Proposed Amendment to the Water Quality Control Plan (Basin Plan) for the San Francisco Bay Region to Establish a Water Quality Attainment Strategy, Total Maximum Daily Load, and Implementation Plan for Diazinon and Pesticide-Related Toxicity in Urban Creeks - Hearing to Receive Testimony on Proposed Amendment**

CHRONOLOGY: January 2001 - Status Report, including draft problem statement and source analysis
September 2002 - Preliminary Project Report
March 2004 - Final Project Report

DISCUSSION: This is the first step of a two-step hearing process to establish a Water Quality Attainment Strategy (Strategy) for diazinon and pesticide-related toxicity in the Region's urban creeks. The Strategy includes an implementation plan that addresses pesticide-related toxicity broadly because pesticide-related toxicity is a concern for all the Region's urban creeks. The Strategy also incorporates TMDL elements necessary to address creeks on the § 303(d) list due to toxicity attributed to the pesticide diazinon.

This first hearing is an opportunity for stakeholders to communicate directly to the Board and for the Board to ask questions of stakeholders and staff on the proposed Basin Plan amendment and supporting staff report (Appendix A). After completing scientific peer review, we provided the public with a 45-day opportunity to review the proposal and submit written comments. We are preparing responses to all written comments and will revise the proposed Basin Plan amendment and staff report as appropriate.

The proposed Strategy reflects a lengthy stakeholder process, which culminated in the recent formal comment period. In 1995, we founded the Urban Pesticide Committee with other stakeholders to develop a strategy to address pesticide-related toxicity in urban creeks. The Urban Pesticide Committee continues to meet bimonthly. Staff completed a Preliminary Project Report in September 2002 and a Final Project Report in March 2004 and solicited stakeholder feedback. We shared an early draft of the Basin Plan amendment with stakeholders in March 2005 and spent more than two months meeting one-on-one with various stakeholder groups to fully understand their perspectives.

Strategy Overview

Problem Statement. The proposed Strategy is necessary because use of some pesticides results in runoff that threatens water quality. In the Region, 37 urban creeks are formally designated as impaired, and pesticide-related toxicity also threatens other urban creeks. In the early 1990s, many urban creek water samples were toxic to test organisms, and the toxicity was linked to diazinon. USEPA phased out most urban diazinon uses at the end of 2004. The phase-out increased the use of alternative pesticides and encouraged new pesticides to enter the marketplace. Diazinon and water column toxicity now occur less frequently, but they still occur. Some diazinon alternatives, particularly the pyrethroids, now pose water and sediment quality concerns. Pyrethroids already cause sediment toxicity in at least some of the Region's urban creeks.

When pesticide-related toxicity is observed in the Region's urban creek water and sediment, the creeks do not meet the Basin Plan's narrative objectives for toxicity, sediment, and population and community ecology. Because all the Region's urban creeks can be reasonably assumed to receive pesticide discharges, and because implementation actions will be most efficient if applied consistently and region-wide, we propose to apply the Strategy to all the Region's urban creeks, including those not formally designated as impaired.

TMDL Analyses. The Strategy includes all TMDL elements, including source assessment, numeric targets, linkage analysis, and allocations. The primary source of pesticides, including diazinon, in urban creeks is urban runoff. Runoff contains pesticides used for structural pest control, landscape maintenance, and other pest management purposes. In the Region, pesticides are most often used to control ants. Use of pesticide products sold over-the-counter and by structural pest control professionals are among the greatest contributors to the pesticides in urban runoff.

The Strategy includes pesticide-related toxicity targets and a diazinon concentration target in urban creeks. The TMDL and allocations are expressed in the same way, and the allocations that apply to urban runoff are the same as the numeric targets. While the allocation scheme may appear simple, the implementation plan reflects the fact that many parties bear responsibility for pesticide discharges to urban creeks. Several agencies oversee pesticide use and pesticide discharges, but gaps in pesticide regulatory program implementation allow pesticides to be used in ways that result in discharges that impair urban creeks. The Region's urban runoff management agencies and others are responsible for urban runoff discharges through NPDES permits, but California law generally prohibits these agencies from regulating the registration, sale, transportation, or use of pesticides other than their own within their jurisdictions.

Implementation Plan. The overarching strategy for eliminating and preventing pesticide-related toxicity in the Region’s urban creeks is to encourage pest management alternatives that do not threaten water quality and to discourage the use of pesticides that run off and threaten water quality. This can best be accomplished through the rigorous application of integrated pest management techniques and the use of less toxic pest control methods. The term “integrated pest management,” refers to a process that meets the following conditions:

- Pest control practices focus on long-term pest prevention through a combination of techniques, such as biological control, habitat manipulation, and modification of cultural practices;
- Pesticides are used only after monitoring indicates that they are needed;
- Treatments are made with the goal of removing only the target pest; and
- Pesticides are selected to minimize risks to human health, beneficial and non-target organisms, and the environment, including risks to aquatic habitats.

The implementation plan includes proposed actions that focus on (1) proactive regulation, (2) education and outreach, and (3) research and monitoring. The Strategy would require urban runoff management agencies to minimize their own pesticide use, conduct outreach to others, and lead monitoring efforts. It would ask pesticide and water quality regulators to better coordinate their programs to protect water quality. Many parties have already initiated efforts to confront the pesticide-related toxicity problem. The Board is implementing many pesticide-related actions through its ongoing programs using its existing authorities.

Public Comments

We have received ten letters (Appendix B) regarding the proposed Basin Plan amendment and staff report. We summarize some of the major comments and our preliminary responses below.

Urban Runoff Management Agencies. Urban runoff management agencies support the proposal to the extent that it calls on others, such as USEPA and the California Department of Pesticide Regulation, to better integrate pesticide regulation with water quality regulation to prevent impairment. However, they think the proposal goes too far. They are concerned that the proposed toxicity targets and wasteload allocations may become permit-required numeric effluent limits for urban runoff discharges. This concern appears to underlie comments suggesting that we should develop a diazinon TMDL separate from the proposed Strategy. The assumption is that a diazinon TMDL would not need toxicity targets, and a pesticide-related toxicity strategy would not need numeric targets at all. We believe both types of targets are necessary because the diazinon concentration targets do not account for pollutant mixtures, the applicable objectives relate to toxicity, and some diazinon replacements pose new toxicity risks. Urban runoff management agencies also ask for more time to review the proposal. We believe this request is unwarranted

because the Strategy is an outgrowth of years of collaboration, and we worked closely with stakeholders prior to distributing the most recent draft of the Strategy.

Baykeeper. Baykeeper generally supports the proposal, but does not think it goes far enough. Baykeeper would like the Basin Plan Amendment to be more specific, particularly in terms of the amount of time the Board will allow for voluntary inter-agency collaboration to take place before using more of its own authorities if necessary. The proposed Strategy relies heavily on Department of Pesticide Regulation authorities to take specific actions to protect water quality. Baykeeper asserts that the Board should take bolder steps to control pesticide discharges by regulating pesticide users more directly. Baykeeper also contends that the Water Board can delegate authority to regulate pesticide use through the Clean Water Act. We disagree, and furthermore believe such a strategy would lead to unnecessarily complicated and inefficient regulatory programs.

California Department of Pesticide Regulation. The Department of Pesticide Regulation generally supports the proposal, but requests some changes to clarify the respective regulatory roles of our two agencies. We have worked closely with Department of Pesticide Regulation staff, especially over the last few years, so we have consensus on most issues, including how best to foster collaboration between us. However, the Department of Pesticide Regulation is concerned about proposed guidance on when the Department of Pesticide Regulation should act to mitigate potential pesticide-related water quality risks. We believe it is appropriate for the Board, as the authority on the Region's water quality, to provide guidance regarding when mitigation to protect water quality is necessary. The Strategy calls for action to address existing and reasonably foreseeable potential violations of water quality standards.

U.S. Environmental Protection Agency. USEPA supports the proposed Strategy, including the adoption of both toxicity and diazinon concentration targets.

Next Steps

The second step of this two-step hearing process is currently scheduled for the November 16, 2005, Board meeting. By then, we will have completed responses to all written comments and revised the proposed Basin Plan amendment and staff report as necessary. The Board will then be able to consider the comments and responses, and establish the Strategy by adopting the proposed Basin Plan amendment.

RECOMMEN-
DATION: No action is necessary at this time.

APPENDICES: A. Proposed Basin Plan Amendment and Staff Report (August 5, 2005)
B. Comment Letters